

1. (cancelled)

2. (New) A manufacturing method of a semiconductor integrated circuit device comprising feeding a source gas containing a monosilane gas and an ammonia gas to the vicinity of a main surface of a semiconductor wafer heated to a temperature not less than a thermal decomposition temperature of said monosilane gas and said ammonia gas in a thermal CVD reactor, and decomposing said monosilane gas and said ammonia gas in the vicinity of the main surface of said semiconductor wafer with said reactor operating under cold-wall thermal CVD conditions, thereby depositing a silicon nitride film by cold-wall thermal CVD over the main surface of said semiconductor wafer placed in a gas atmosphere containing said monosilane gas and said ammonia gas,

wherein a flow rate ratio of said ammonia gas to said monosilane gas is within a range of 150 to 750 and a pressure of said gas atmosphere is within a range of 37 kPa to 50 kPa.

3. (New) A method according to claim 2, wherein a flow rate ratio of said ammonia gas to said monosilane gas

is within a range of 200 to 650 and a pressure of said gas atmosphere is within a range of 39 kPa to 49 kPa.

4. (New) A method according to claim 2, wherein a flow rate ratio of said ammonia gas to said monosilane gas is within a range of 300 to 550 and a pressure of said gas atmosphere is within a range of 41 kPa to 47 kPa.

5. (New) A method according to claim 2, wherein the main surface of said semiconductor substrate is divided into at least one chip region and each said chip region has a low pattern density region and a high pattern density region.

6. (New) A method according to claim 2, wherein said reactor is a single-wafer thermal CVD reactor.

7. (New) A method according to claim 6, wherein a flow rate ratio of said ammonia gas to said monosilane gas is within a range of 200 to 650 and a pressure of said gas atmosphere is within a range of 39 kPa to 49 kPa.

8. A method according to claim 6, wherein a flow rate ratio of said ammonia gas to said monosilane gas is within a range of 300 to 550 and a pressure of said gas atmosphere is within a range of 41 kPa to 47 kPa.

9. A method according to claim 6, wherein said wafer has a diameter of at least 200 mm.

10. A method according to claim 7, wherein said wafer has a diameter of at least 200 mm.

11. A method according to claim 8, wherein said wafer has a diameter of at least 200 mm.